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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/893,302 | 06/27/2001 | Matthew P. Wenger | 328 P 603 | 1990 |

7590 08/24/2005

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EXAMINER

GRIER, LAURA A

ART UNIT PAPER NUMBER

2644

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 09/893,302 | Applicant(s) WENGER ET AL. | |
| | Examiner Laura A. Grier | Art Unit 2644 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 121, 123 and 126-137 is/are pending in the application.
- 4a) Of the above claim(s) 130-134 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 121, 123, 126-129, 135- 137 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 121, 123, and 126-129 in the reply filed on 5/25/05 is acknowledged. The traversal is on the ground(s) that the restriction requirement is improper. This is not found persuasive because Group I and Group II were distinct invention in regards to the fact that Group I was drawn to a microphone designed to specifically to detect a specific directional sound without unwanted noise disturbances or interferences, and Group II had a separate utility such as being useful in any microphone environment that required adequately functioning microphones.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification fails to disclose the following; the limitation of claims 129 and 135 in respect to the 1st system output being a digital output and the 2nd system output being an analog output.

Claim Rejections - 35 USC § 101

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 129 and 135** are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the signal processor or processing means having one or more analog or digital outputs (meaning one or the other), does not reasonably provide enablement for the signal processor or processing means having one or more analog and digital output (meaning not both). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The claim language provides implication for a dual mode or dual function processor, wherein the specification discloses the processor may enable analog or digital outputs, not necessarily both.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 121, 123, 126-128, and 136-137** are rejected under 35 U.S.C. 102(e) as being anticipated by Valve, U. S. Patent No. 6449593.

Regarding **claims 121**, Valve discloses a method and system for tracking human speakers (figure 3). Valve's disclosure comprises a microphone array (20) with an output to an far-end (62), which reads on a microphone array, a beamformer (40) coupled to a speaker tracking

processor (70) which forms a plurality of microphone beam associated with each human speaker, which reads on a signal processing system (col. 2, lines 53-67 – col. 3, lines 1-2, abstract).

Regarding **claim 123**, Valve discloses everything claimed as applied above (see claim 121). Valve further discloses a speaker detecting processor (70) in the speaker tracking system (10).

Regarding **claims 124-126**, Valve discloses everything claimed as applied above (see claim 121). Valve further discloses a speaker detecting processor (70) in the speaker tracking system (10) comprising means of defining an acceptable are about the speakers, making adjustments thereto and selecting between beams (col. 4, lines 44-67 and col. 5, lines 1-30).

Regarding **claim 128**, Valve discloses everything claimed as applied above (see claim 121). Valve's disclosure inherently discloses the 1st and 2nd system outputs being associated with respective 1st and 2nd speakers as evident by the fact that system in an environment where there are plurality of human speakers.

Regarding **claim 136**, Valve discloses everything claimed as applied above (see claim 121). Valve's disclosure indicates that the signals processed by the beamformer are digitized and output therefrom, thus indicating the digital outputs (col. 4, lines 44-54).

Regarding **claim 137**, Valve discloses everything claimed as applied above (see claim 121). Valve's disclosure inherently discloses the 1st and 2nd system outputs being analog as evident by the fact that they are output by the loudspeaker as sound waves and by the fact the input signal is analog and thus is inherent that is output as analog signal in its original format.

7. **Claim 127** is rejected under 35 U.S.C. 102(e) as being anticipated by Valve in view of Jenkins, U. S. Patent No. 4725956.

Regarding claim 127, Valve discloses everything claimed as applied above (see claim 121). Valve disclose the system usable in a vehicle. However, Valve fails to specifically disclose the microphone array being responsive to audible commands for controlling a vehicular function.

Regarding the audible command for the vehicular function, Jenkins discloses a voice command air vehicle control system (col. 2, lines 22-40).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Valve by implementing audible voice commands for a vehicle for the purpose of remotely controlling the vehicle.

Response to Arguments

8. Applicant's arguments filed 10/20/05 have been fully considered but they are not persuasive.

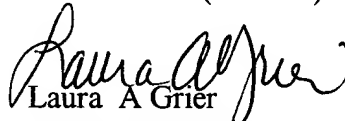
The applicant argues that the prior art of record, Valve fails to discloses more than one output and thus, failing to provide for one or more outputs. In respect the arguments, Valve discloses a system from detecting and tracking human speakers among a group of person, which constitutes that one or more speakers' input will be processed via the microphone system of Valve. Further, the claim language fails to limit how the 1st and 2nd speaker's inputs are processed, in respect to being processed on an individual time basis or simultaneously. Thus, the Valve art rejection is maintained for elected claims indicated in the restriction election.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A. Grier whose telephone number is (571) 272-7518. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Laura A Grier
Primary Examiner
Art Unit 2644
8/21/05